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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,436	12/16/1999	CHRISTOPHER MIDGLEY	NTK-005.01	8863

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EXAMINER

ALAM, SHAHID AL

ART UNIT PAPER NUMBER

2172

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/465,436

Applicant(s)

MIDGLEY ET AL.

Examiner

Shahid Al Alam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s) _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on April 30, 2002 have been fully considered but they are not persuasive.
2. Applicants' argue that Saxon does not detect a condition representative of the storage medium having reached capacity.

Saxon cannot direct a processor to compare time signal based on detecting the condition.

Bolt does not make additional storage space available by comparing time signals for data storage elements.

Examiner respectfully disagrees with the Applicant's argument.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Saxon's teaching of the selection criteria comprises a "maximum size" threshold with the schedule level. The maximum size threshold indicates a maximum size (capacity of the storage medium) that the save set at the schedule level must not exceed. This parameter is chosen by the system administrator or the user, who

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determines that this is the maximum amount of data that can be backed up (reaching the capacity) (column 7, lines 19 – 27, Saxon).

Bolt teaches that the user can define the predetermined storage space limit and if a storage space limit has been reached, backup will proceed when additional free storage space available (see column 13, lines 24 – 42, Bolt).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the capacity of storage units as taught by Bolt in Saxon to improve system performance by efficiently utilizing computing resources. In this particular instance, the capacity of storage unit is selected or defined by a user as a performance parameter (Bolt; column 13, lines 36-37).

Saxon's teaching states that the method of Saxon proceeds in reverse timestamp order, beginning with the timestamp of the most recent save set as the current timestamp. The total size is compared to the maximum size threshold to determine if the total size is less than or equal to the maximum size threshold. Saxon's teaching shows that processor is comparing with respect to timestamp to determining the maximum size threshold based on condition.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5 – 9, 12 – 19, 22 and 24 - 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,758,359 issued to Paul Saxon ("Saxon") in view of U.S. Patent Number 6,038,665 issued to Thomas Bolt et al. ("Bolt").

With respect to claim 1, Saxon teaches a process for storing data (see abstract), comprising:

providing a back up server having storage for a plurality of data files (column 4, lines 39 – 42 and 50 – 57),

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providing a long term memory device having a plurality of data storage elements and a processor for coordinating the operation of the plural data storage elements (column 3, lines 55 – 66),

directing the processor to store data on the storage elements and for recording a time signal representative of the time of recording (column 4, lines 52 – 60),

detecting a condition representative of each storage elements having reached capacity (column 7, lines 19 – 27), and

bases on the condition, directing the processor to compare the time signals for each data storage element to store data on the storage elements having the earliest recorded data

(column 5, lines 39 – 45).

Saxon teaches the selection of maximum size for data to be backed up

(column 7, lines 19 – 27).

Saxon does not detail the maximum size in terms of storage capacity.

Bolt teaches the selection of a limit of storage capacity during back-up operation (column 13, lines 24 – 42).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the capacity of storage units as taught by Bolt in Saxon to improve system performance by efficiently utilizing computing resources. In this particular instance, the capacity of storage unit is selected or defined by a user as a performance parameter (Bolt; column 13, lines 36-37).

As to claim 5, Bolt teaches that the processor to store data on the storage elements includes directing the processor to store data on each storage element until each storage element reaches capacity (column 13, lines 37 – 42).

Claims 6 – 8, 12 – 14, 17, 19, 22, 24 and 27 are rejected for the same rational as given above in claim 1.

Claims 9, 15, 16, 18, 25, 26 and 28 are rejected for the same rational as given above in claim 5.

4. Claims 2 - 4, 10, 11, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saxon as applied to claim 1 above, and further in view of U. S. Patent Number 6,023,709 issued to Matthew Anglin et al., ("Anglin").

With respect to claims 2-4, 10, 11, 20 and 21, Saxon teaches the claimed subject matter as discussed in claim 1, except that Saxon does not explicitly teach a tape library having a plurality of drive elements and a robotic controller.

As to claim 2, Anglin, in a back-up system similar to Saxon, teaches a long-term memory device including a tape library system having a plurality of drive elements (column 3, lines 42 – 47).

As to claim 3, Anglin, in a back-up system similar to Saxon, teaches the tape library includes a robotic controller for moving tapes in an out of tape drive system (column 3, lines 48 – 50).

As to claim 4, Anglin, in a back-up system similar to Saxon, teaches the long-term memory device includes a raid storage system (column 3, lines 31 – 35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine Anglin and Saxon because the tape library, robotic controller and RAID array provide additional hardware capabilities for the combined system and thus improve its robustness.

Claims 10, 11, 20 and 21 are rejected for the same rational as given to claims 2 – 4 above.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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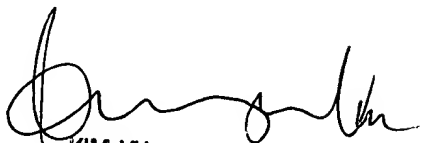
Contact information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (703) 305-2358. The examiner can normally be reached on Monday - Thursday 8:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Shahid Al Alam
Examiner, AU 2172
July 15, 2002


KIM VU
SUPERVISORY PATENT EXAMINER
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